

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 07 August 2000 (07.08.00)	
International application No. PCT/US99/13049	Applicant's or agent's file reference 3859-PA5PC
International filing date (day/month/year) 09 June 1999 (09.06.99)	Priority date (day/month/year) 20 November 1998 (20.11.98)
Applicant BEECHAM, James, E.	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
07 June 2000 (07.06.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

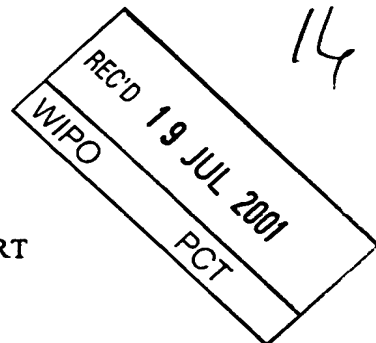
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer S. Mafla
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



14

09/856409

Applicant's or agent's file reference NONE	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/13049	International filing date (day/month/year) 09 JUNE 1999	Priority date (day/month/year) 20 NOVEMBER 1998
International Patent Classification (IPC) or national classification and IPC IPC(7): G06K 9/00 and US Cl.: 382/116, 306; 707/9		RECEIVED
Applicant BEECHAM, JAMES E.		AUG 31 2001 Technology Center 2100

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 7 sheets.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07 JUNE 2000	Date of completion of this report 01 JUNE 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer LEO H. BOUDREAU
Facsimile No. (703) 305-3230	Telephone No. (703) 305-3800

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13049

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-59

pages NONE

pages NONE

, as originally filed
, filed with the demand
, filed with the letter of☒ the claims:

pages 60-71

pages NONE

pages NONE

pages NONE

, as originally filed
, as amended (together with any statement) under Article 19
, filed with the demand
, filed with the letter of☒ the drawings:

pages 1-17

pages NONE

pages NONE

, as originally filed
, filed with the demand
, filed with the letter of☒ the sequence listing part of the description:

pages NONE

pages NONE

pages NONE

, as originally filed
, filed with the demand
, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig. NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US99/13049

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☐ the entire international application.

☒ claims Nos. 20-23

because:

☐ the said international application, or the said claim Nos. _ relate to the following subject matter which does not require international preliminary examination (*specify*).

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _ are so unclear that no meaningful opinion could be formed (*specify*).

☐ the claims, or said claims Nos. _ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 20-23.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
- ☒ the parts relating to claims Nos. 1-19 and 24-34.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13049

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	<u>2-4, 7-9, 12-19, 24-30, 32.</u>	YES
	Claims	<u>1, 5-6, 10, 11, 31, 33, 34.</u>	NO
Inventive Step (IS)	Claims	<u>15</u>	YES
	Claims	<u>1-14, 16-19, 24-34</u>	NO
Industrial Applicability (IA)	Claims	<u>1-19, 24-34</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1, 5, 6, 10, 11, 31, 33 and 34 lack novelty under PCT Article 33(2) as being anticipated by Lang (US 5,191,611).

Regarding claims 1, 5, 6, 10, 31, 33 and 34, Lang teaches storing a document ("messages and other textural information ..." at column 5, line 44) on a computer system (see figure 1) with an attached code ("identification code" at column 5, line 64; see "directly on the storage medium" at column 5, line 56; the code and document are attached to the storage medium, and thus attached to each other; if the storage medium, as the disclosed CD ROM, is transported, both the code and the document stay together), including biometric data ("biometric" at column 5, line 65, column 10, line 24 and column 15, line 26) of an authorized person, and authenticating the document and code by biometric comparison ("biometrics are used to identify the user" at column 15, line 26), thus confirming the authorized person and authorizing removal of the document ("allowed access" at column 7, line 13).

Regarding claim 11, the process is repeated for each individual requesting authority (see "nine authorized users" and "one or more users" at column 7, lines 10-20).

Claim 32 lacks an inventive step under PCT Article 33(3) as being obvious over Lang (US 5,191,611). Lang discloses a document authorization system for storing textural messages as applied to claim 31 above. While Lang does not specifically state that person can be (or is) the subject of the textural message, any types of "textural message" can be stored, including a personal letter regarding issues related to the authorized person, such as a letter of commendation. Lang does not limit the type and content of the stored data. It would have been obvious at the time the invention was made to one of ordinary skill in the art allow a person to store a personal letter, such as a letter of commendation, on the storage medium taught by Lange, thereby not limiting the system to specific types of information and content, thus making the system very flexible and user friendly.

(Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13049

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 1 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: line 8, the word "bar" should be "code", in the context of the claim.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/13049

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

Claims 2, 3, 7 and 8 lack an inventive step under PCT Article 33(3) as being obvious over Lang (US 5,191,611) in view of Bogosian, Jr. (US 5,513,272). Lang discloses a document authorization system where biometric data of an authorized person is stored with the document as described in the claim 1 and 6 rejections above. Lang does not disclose taking a digital photograph of the person and individual for biometric verification. Bogosian discloses a system in the same field of endeavor of personal verification, and same problem solving area of biometric verification, comprising storing a reference digital photograph of a fingerprint and comparing the print with an input digital photograph of the print (see figures 1 and 2). In addition, Bogosian stores a plurality of different types of digital photographs, corresponding to various biometric data, for subsequent verification (see figures 1 and 2). Bogosian states that the "cross-checking" ensure that the stored data has not been tampered with, and provides an improved, more secure method of verification over the storage of a single biometric feature (see column 1, lines 30-60). It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lang system to store the digital photographs taught by Bogosian, for subsequent verification through cross-checking to improve the verification accuracy, and thereby add an extra level of assurance that the stored biometrics have not been tampered with.

Claims 4 and 9 lack an inventive step under PCT Article 33(3) as being obvious over Lang (US 5,191,611) in view of Wang et al. (US 5,490,217). Lang discloses a document authorization system where biometric data of an authorized person is stored with the document as described in the claim 1 and 6 rejections above. Lang does not teach forming a two-dimensional bar code as the step of forming the personal identification code. Wang discloses a system in the same field of endeavor of personal verification, and same problem solving area of biometric verification (see column 3, lines 15-29), comprising forming a 2D barcode having the biometric code of a user, of a document, on the document (column 3, lines 6-28; see figure 5). By imprinting the code directly on the document, the code can be "used to retrieve [the] document from the system at a later time" and serves to detect whether the document has been "altered" as described at column 2, lines 40-50. It would have been obvious at the time the invention was made to one of ordinary skill in the art to imprint the biometric portion of the access code required by Lang, directly on the document in the form of a machine readable 2D barcode as taught by Wang, in order to simplify document retrieval using the code, and to alert the user as to whether the document had been altered as taught by Wang.

Claims 12-14, 16-19 and 24-30 lack an inventive step under PCT Article 33(3) as being obvious over Lang (US 5,191,611) in view of Wang et al. (US 5,490,217) and Bogosian, Jr. (US 5,513,272). Lang discloses a document authorization system as applied to claim 1 (and other) above, the details of which will not be repeated here. Lang does not disclose the use of digital biometric photographs and barcodes as detailed in the rejection of claims 2 and 4 above. Bogosian teaches the use of digital biometric photographs as applied to claim 2 above, including the registration and verification process as depicted in figures 1 and 2. Wang teaches the application of a 2D barcode on a document for subsequent biometric identification. It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Lang system to require the registration and verification of a person seeking to access the Lang document using digital biometric photographs of various biometric data, and it would have been obvious to store those photographs in the form of a machine readable bar code on the document itself as the biometric portion of the Lang identification code, for the reasons and motivation set forth in the claim 2 and 4 rejections above.

Claim 15 meets the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest dividing the digital photograph into first and second partial images.

NEW CITATIONS

NONE

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G06K 9/00		A1	(11) International Publication Number: WO 00/31677
			(43) International Publication Date: 2 June 2000 (02.06.00)
(21) International Application Number: PCT/US99/13049			(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 9 June 1999 (09.06.99)			
(30) Priority Data: 60/109,287 20 November 1998 (20.11.98) US 60/131,014 26 April 1999 (26.04.99) US			
(71)(72) Applicant and Inventor: BEECHAM, James, E. [US/US]; 8820 Cortile Drive, Las Vegas, NV 89134 (US).			
(74) Agent: PARSONS, Robert, A.; Suite 260, 340 East Palm Lane, Phoenix, AZ 85004 (US).			

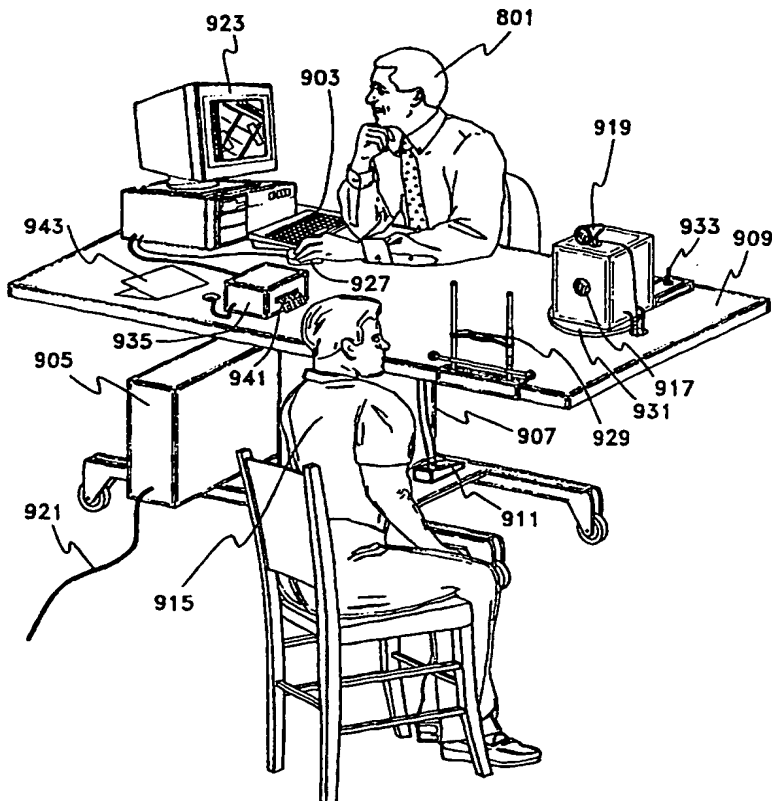
Published

With international search report.

(54) Title: METHOD, SYSTEM AND APPARATUS FOR AUTHORIZATION AND VERIFICATION OF DOCUMENTS

(57) Abstract

A method for the authorization of documents is disclosed which includes preparing a record for future reference by authorized personnel including providing a sensitive document (943), collecting biometric data (917) from an individual (915) requesting authority to become an authorized person to access the document (943), forming a bar code (941) including the biometric data from the individual, attaching the bar code to the document (943), and storing the document and attached bar code. Access to the document is authorized by collecting current biometric data from a person requesting access, comparing the current biometric data to the bar code attached to the document, and confirming that the person requesting access and the authorized individual are identical. Included is a method in which portions of a digital photograph are linked to different biometric data and stored data is compared to current data with the linked portions being joined to make a composite photograph.



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EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/13049

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06K 9/00

US CL : 382/116, 306; 707/9

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 250/556, 557; 283/68, 69, 70, 77, 78, 81-114; 340/825.34; 356/71; 358/403; 382/115-127, 232, 306; 707/6, 9;

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST, IEEE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,191,611 A (LANG) 02 March 1993, col. 1, line 45 - col. 2, line 67, col. 7, lines 14-17, col. 8, lines 1-3, col. 14, lines 5-10, col. 15, lines 25-27.	1, 5, 6, 10, 11, 31-34 ----- 2-4, 7-9, 12-14, 16-19, 24-30
Y	US 5,490,217 A (WANG et al) 06 February 1996, col. 2, lines 26-67, col. 3, line 15-22, col. 4, lines 13-17, col. 5, lines 5-10 and 40-55.	4, 9, 12-14, 16-19, 24-30.
Y	US 5,513,272 A (BOGOSIAN, Jr.) 30 April 1996, figure 1.	2, 3, 7, 8, 12-14, 16-19, 24-30

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents.	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G* document member of the same patent family
C document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

25 OCTOBER 1999

Date of mailing of the international search report

18 NOV 1999

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
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BRIAN P. WERNER

Telephone No. (703) 305-3800

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/13049

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-19 and 24-34

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/13049

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-19 and 24-34, drawn to a method for authorizing access to documents.

Group II, claims 20-23, drawn to a method for verifying the operation of a biometric apparatus.

The inventions listed as Groups I and II do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I is drawn to a method for authorizing access to documents through biometric comparison of a person requesting access with coded biometric data stored on or with the document. Biometric comparison for granting access is well known in the art, so the special technical feature that makes over the prior art must lie in the manner in which the coded biometric data is stored on the document. Group II is drawn to a method for verifying the operation of a biometric apparatus by linking two pieces of input biometric data with two portions of a photograph respectively, wherein upon a successful comparison of the two separate pieces of biometric data, the two portions of the photograph are combined for visual verification. Group II has nothing to do with authorizing access to a document. These two groups do not relate to a single inventive concept, and do not share a single special technical feature that makes over the prior art.